#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

#### WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-023578 Address: 333 Burma Road **Date Inspected:** 05-May-2011

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No **Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** OBG

#### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Kelly Leavitt, was present during the times noted above for random observations relative to the work being performed.

Bay 11

This QA Inspector observed the following work in progress for Bay 11.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Wang Chuany Xin, CWI Shi Yen.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; Bike Path (see photo)

PCMK: BK012A1-001

Weld No: 043 Welder: 046704

WPS-B-P-2212-TC-U4b

Components; Tower (see photo) PCMK: WSD1-TBSA7-4AB

Weld No: All Welder: 041271

WPS-B-P-2214-TC-U5b



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Components; Tower

PCMK: ESD1-TBSA7-4AB

Weld No: All Welder: 202354

WPS-B-P-2214-TC-U5b

#### Trial Assembly

This QA Inspector observed the following work in progress for Trial Assembly.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Zhan Hal Fang and An Qing Ziang.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 13CE PCMK: VP3007-001

Weld No: 043,044,057,070

Welder: 058102

Weld Repair No. B-WR20767

WPS-345-SMAW-1G(1F)-FCM-Repair-1

Components; OBG 13 E PCMK: SEG3019B Weld No: 029,039,040

Welder: 215553

Weld Repair No. B-WR20830

WPS-345-SMAW-3G(3F)-FCM-Repair-1

Components; OBG 13 E PCMK: SEG3019C

Weld No: 039,041,042,044

Welder: 215553

Weld Repair No. B-WR20830

WPS-345-SMAW-3G(3F)-FCM-Repair-1

Components; OBG 14E PCMK: SEG3019L Weld No: 015,018,021

Welder: 044779

WPS-B-P-2112-FCM-1

This QA Inspector observed the following work in progress for Trial Assembly.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Zhan Hal Fang and An Qing Ziang.

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Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS). Listed below are the locations that were identified by this QA inspector.

Components; OBG 13BE to 13CE

PCMK: OBE13 Weld No: 002,003

Welder: 050242, 044772, 052696

WPS-B-T-2231T-ESAB-1

Components; OBG 13BE to 13CE

PCMK: SA3030-005 Weld No: 001,003,005,007

Welder: 050977

WPS-B-T-2231-ESAB

Components; OBG 13BE to 13CE

PCMK: SA3030-006

Weld No: 001,003,005,007

Welder: 050977

WPS-B-T-2231-ESAB

Components; OBG 14E PCMK: SEG3007AE Weld No: 093,095 Welder: 055564

WPS-B-T-2231-ESAB

Heat straightening of PCMK: LD3041A under approved Heat Straightening procedure, HSR1 (B)-10321. The in process temperature was observed as 420°C. The ZPMC QC was identified as Shen Jian Bo. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 30mm.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## **Summary of Conversations:**

"No relevant conversations."

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey 1500026784, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Leavitt,Kelly	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer